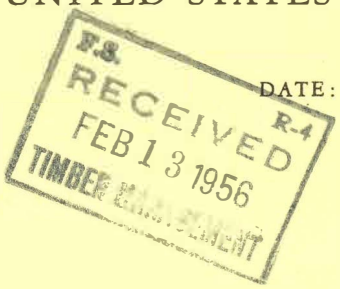
STANDARD FORM NO. 64

Office Memorandum • UNITED STATES GOVERNMENT



TO : Regional Forester

DATE: 2/9/56

FROM : GILBERT B. DOLL, F. S.

SUBJECT: S, CONTROL, Ashley, Insects

Reference is made to the Annual Aerial Survey report prepared by Entomologist Dick Washburn for the Wasatch-Ashley national forest areas in November, 1955. This report indicates the result of an aerial survey made on August 29, 1955.

We certainly appreciate the efforts that were put into such a survey. It will be very helpful to us in determining future plans for these areas and keeping us abreast of this insect control problem.

Since we did not know of all of these conditions prior to snowfall, we were unable to check these areas on the ground to determine further facts about them prior to our roads being closed out due to snow. We have discussed these reports with all of the district rangers involved and, in many cases, they plan to make snowshoe trips into these areas to determine additional information in the very near future.

Our rangers have the following to report concerning areas on the Ashley:

North Side

Area B. - Sheep Creek-Hickerson Park.

This area appears to be on the downward grade as to insect infestation but needs follow-up and ground checks which will be conducted early next spring.

Area C. - Ute Lookout South.

Ranger Ernie Hirsch indicates that it is his belief that a major part of these trees were killed due to beaver work and newly constructed irrigation ditches rather than due to insects. We will check this area further next spring.

Area D. - Elk Park.

Ranger Hirsch advises that he will check this area early next spring. If possible and practical, he will plan to cut this and the 1956 attack timber out in a salvage sale next season.

South Side

Area E. - Pole Creek.

Ranger Worf has not had an opportunity to check this infestation on the ground since it was reported. He did check the general area by air while on a recent game count with the Utah State Fish and Game Commission officers but was unable to locate this area by air. He states further that if it is one of the prop stands of timber known to occur in this area, he will plan an early spring sale on the area.

Area F. - Yellowstone-Hell Canyon.

Ranger Palm advises that some of the red tops in the vicinity of Upper Yellowstone River may be due to water. He plans to check these areas and the Yellowstone Canyon area early next spring and, if at all possible, to conduct a sale of these and any 1956 attack trees wherever it appears practical.

We will give you a further report on these various areas as soon as we are able to check them on the ground.

We would like to suggest that on the next aerial survey made of the Ashley that the entire south side needs a much more complete aerial survey since much of these back country areas are not readily observed by us on road travel. The route that was taken by the airplane, following the Vernal-Manila Highway from north to south, is an area that we are able to keep in close contact with. We would also suggest that a close watch on these aerial surveys should be made of the High Uintas Wilderness Area since any insect build-ups in this region will be difficult to handle due to the remoteness of the area.

We believe that any of the concentrated insect infestations pointed up on the Ashley in this 1955 survey can be readily handled by salvage sales and we will point our early spring work towards this end.

When future surveys are conducted on the Ashley, if at all possible, we would be glad to provide a forest officer to accompany Mr. Washburn so as to bring back a complete list of the problem areas at an early date so that we could plan field checks of these prior to the winter season closing us out. This will enable fall cruising and possible some fall sales of big timber.

Thanks again for a very helpful report.

H. M. Doll

cc: Range Experiment Station

This is an excellent suggestion. Other forests may want to take advantage of it also

WASATCH-ASHLEY NATIONAL FORESTS

Annual Aerial Survey

Fall 1955

By

R. I. Washburn
Entomologist

Losses caused by the mountain pine beetle in lodgepole pine stands on the Ashley and Wasatch National Forests have been reported almost every year since before 1920. Their severity has fluctuated greatly, ranging from a few hundred trees up to over 100,000 in a single year. Artificial control work was begun in 1931 and continued through 1936, with a total of about 140,000 trees being treated. Very little infestation was reported on the Ashley from 1937 to 1940 inclusive, but in 1941 heavy infestations were found in the Smith's Fork, Sage Creek and Henry's Fork areas. The beetle increased more rapidly on the Wasatch and a 4 to 1 buildup was reported on the Black's Fork area in 1938 with an even greater increase in 1939. Control work began again on the Wasatch in 1940 and on the Ashley in 1941, but had to be abandoned after 1944 becauseof a labor shortage. A total of about 62,500 trees were treated during the years 1940 to 1944. It was not possible to complete any of the annual treating program during these years.

No control work has been done on either forest since 1944. Losses increased rapidly to a peak of over 110,000 trees killed in 1948, 1949, 1950. However, the peak on the Wasatch came in 1948 and then dropped off rapidly. On the Ashley, the peak was reached in 1949 and continued at about the same level in 1950 with a sharp decrease in 1951. In 1953 the epidemic made a decided upswing and has continued to increase at an alarming rate.

Using a chartered Cessna 180 airplane, piloted by John Holman of Southwestern Skyways, an aerial survey of the Wasatch and Ashley National Forest's lodgepole pine areas was made on 29 August 1955. Total flying time including ferry time to and from Ogden, Utah was just over six hours. The principal purpose of the flight was to obtain additional data on the Mountain Pine beetle, Dendroctonus monticolae Hopk. outbreak. Emphasis was directed towards determination of the trend, general location, movement of the infestation, and the pattern and size of the groups. Of course, it was impossible to detect the currently infested trees, but the trees attacked in

1954 (faded in 1955) were easily separated from the trees killed prior to 1954. Throughout this report the words "red tops" will mean the trees that were attacked in 1954 and faded in 1955. Locations of the areas are outlined on the attached map. A discussion of the information obtained about each area follows:

North Side

Area A, West Fork Beaver Cr.-Hoop Lake.

Est. 10,000 red tops - 15,000 acres.

The area just inside the ridge from Hole in Rock R.S. running west to the West Fork of Beaver Creek is heavily infested. However, the trees are not in large groups but appear in 2's and 3's scattered uniformly throughout the stand. East of Hoop Lake toward Beaver Meadows the infestation thins out to an occasional group of 2's or 3's. From Hoop Lake and Burnt Ridge up the slope (to the south) the infestation is represented by large groups of from 50 to 100 trees. There are probably no more infested trees than where the trees are scattered in groups of 2's and 3's. There is little or no evidence of past damage by this particular epidemic on the upper slopes that now contain the large groups. A third of the way up the West Fork of Beaver Creek there are two groups that contain more than 200 red top trees each, and many groups of 50 to 100 trees. Farther up the West Fork of the Beaver there are many areas of young timber apparently uninfested, but wherever mature timber exists the bark beetles are present. At least 30% of the mature timber in the West Fork of Beaver Creek was infested in 1954 by the mountain pine beetle. The evidence indicates a buildup in or spread into stands that have escaped bark beetle damage up to the present.

Area B, Sheep Creek-Hickerson Park

Est. 500 red tops - 10,000 acres.

The Sheep Creek-Hickerson Park lodgepole pine stands are relatively free of mountain pine beetle killed trees. There are a few scattered groups but the infestation has died down considerably in the last three years.

Area C, Ute Lookout South

Est. 1,000 red tops - 2,000 acres.

Almost due south of the Ute Mt. Lookout and just across the river there is a large group of faded lodgepole pine. This group contains over 200 trees standing in a pond of water that may or may not be beetle killed trees. In addition, there are large groups in the West Fork

of Carter Creek. Each group contains from 50 to 100 red top trees. Red tops are dispersed between the large groups.

No serious infestation was noted in the ponderosa pine type east of the lookout.

Area D, Elk Park.

Est. 200 red tops - 500 acres.

In Elk Park, due south of Summit Springs R.S., there is an infestation of approximately 200 red top trees. They appear in groups of from 2 to 15 trees. The area of infestation is approximately 500 acres and extends on both sides of the road.

South Side

Area E, Pole Creek

Est. 800 red tops - 400 acres.

An area on Pole Creek, approximately 4 miles east and 1-1/2 miles south of the Uinta G.S., contains a serious infestation represented by approximately 600 "red top" trees in one side drainage and approximately 200 in the next small drainage.

Area F, Yellowstone-Hell Canyon .

Est. 300 red tops - 1,000 acres.

Approximately two miles up the Yellowstone river from the Yellowstone G.S. there are several groups of 10 to 15 trees. Below the G.S. and on the ridge between Hell Canyon and Yellowstone infested trees again appear in groups. Groups of from 3 to 10 trees are scattered all through Hell Canyon.

West Side

Area G, Soapstone

Est. 7,500 red tops - 55,000 acres.

There are scattered small groups of infested trees throughout the area. The only noticeable concentration of red tops is located on the Provo River between the Soapstone G.S. and the switchbacks.

North Side

Area H, East Fork of Bear River

Est. 100 red tops, 100 acres.

On the north facing slope of the East Fork of Bear River, near the junction with the road to Mill Creek R.S., there is a center of approximately 100 red top lodgepole pine trees. Otherwise the area from Whitney G.S. to and including the East Fork of Bear River appears relatively free of mountain pine beetle infestation.

Area I, Elizabeth Mountain

Est. 2,500 red tops - 2,500 acres.

On the lower west slope of Elizabeth Mountain in the Gull Hollow area, an area very heavily hit in the past, there are now approximately 2,500 red top lodgepole pine. The faded trees are not in large groups, there are some groups of 15 to 20 trees, Most of the groups containing 5 to 10 trees that faded in 1955. This area has been hard hit since the inception of the epidemic. Several times it has been thought that suitable host material had been exhausted, but apparently there is still sufficient lodgepole pine to maintain a heavy beetle population.

On the south side of Elizabeth Mountain there are several patches of true firs containing centers of either Scolytus or Dryocoetes damage.

Area J, East Fork of Black Fork Guard Station

Est. 300 red tops - 400 acres.

Just south and east (across the creek) there are an estimated 300 trees that were attacked in 1954 and faded in 1955. There is very little evidence of any infestation on the west side of the East Fork of the Black Fork.

Area K, Old Blacks Fork Commissary

Est. 1,500 red tops - 2,000 acres.

In the head of Horse Creek, which would be almost due east from the old Blacks Fork Commissary, there are approximately 700 red tops in an area that has been infested for several years. Additional groups outside this one large concentration are found south of the head of Horse Creek and near the east-west main road. The red tops are mostly in groups of 25 to 30 trees.

Area L, Hewinta Guard Station

Est. 200 red tops - 400 acres.

South and east of the Hewinta G.S. there are several small groups. Between the G.S. and the main road the stand is spattered with red trees.

Area M, Cowboy Park

Est. 5,000 red tops - 3,000 acres.

The area directly to the east of Cowboy Park contains large groups. (100 or more trees per group). There are 1 or 2 of the large groups for every 2 or 3 hundred acres. There are also many other groups of all sizes. A conservative estimate of the number of 1954 attacked trees in Area M would be 5,000 trees.

Area N, Gilbert Creek.

Est. 5,000 red tops - 3,000 acres.

There are many small groups of trees on the lower end of Gilbert Creek. Farther up Gilbert Creek there are many large groups of 50 to 100 trees. An area approximately 2 miles in length near the Wyoming-Utah line could be considered one large loose group. The trees appear as singles and groups of 2's and 3's, only 4 or 5 chains apart at most.

Area O, Smiths Fork

Est. 20,000 red tops - 10,000 acres.

All of the Smiths Fork drainage contains a very heavy concentration of bark beetle activity. Actually, the groups range in size from over 100 trees down to groups of 2's and 3's. A conservative estimate would be 20,000 trees that faded in 1955 (red tops) for the Smiths Fork area.

Area P, Sage Creek-Red Mountain.

Est. 2,000 red tops - 2,500 acres.

On the slopes of Sage Creek there are many faded trees, but they do not occur in large groups as they do in Smiths Fork. Rarely does a group contain more than 10 trees that faded in 1955.

Area Q, Dahlgreen Creek.

Est. 6,000 red tops - 3,000 acres.

In the head of Dahlgreen Creek the infestation appears to be in a little younger stand. Looking at the pronounced grouping, mostly 5 to 10 trees per group, but some large groups (50 trees or more), the impression registered is that this area contains a very aggressive bark beetle population. The infested area in Dahlgreen Creek contains an estimated 2 red tops per acre.

Area R, Henry's Fork.

Est. 6,000 red tops - 6,500 acres.

Henry's Fork presents a similar picture of scattered trees, groups of 2's and 3's, 5's and 10's, occasionally large groups of 50 to 100 newly faded trees. Actually, there is a little less than one red top per acre in Henry's Fork, primarily because of open stands and some open areas, but wherever there is lodgepole pine there is a heavy infestation of mountain pine beetle.

Area S, Poison Creek.

Est. 500 red tops - 700 acres.

There are possibly 500 red tops between the West Fork of Beaver Creek and Henry's Fork (Poison Creek).

WASATCH-ASHLEY NATIONAL FORESTS

Mountain Pine Beetle-Lodgepole Pine

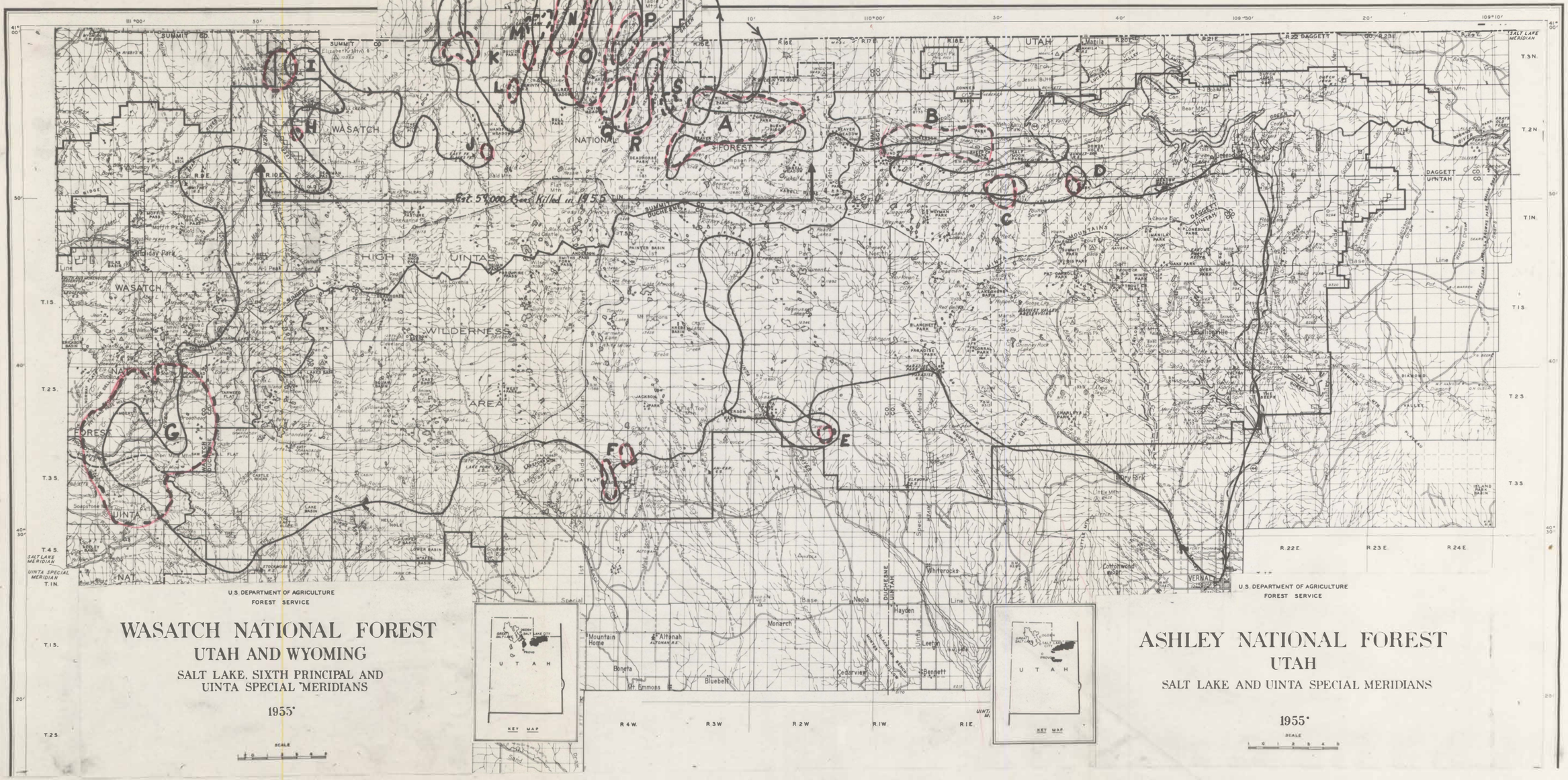
Aerial Survey
Fall 1955

	Area	Est. No. Red Tops	Approx. Red tops/A	Approx. Infested Area in Acres
	North Side			
A.	West Fk. Beaver-Hoop Lake	10,000	.67	15,000
B.	Sheep Cr.-Hickerson Park	500	.05	10,000
C.	Ute Lookout-South	1,000	.50	2,000
D.	Elk Park	200	.40	500
	South Side			
E.	Pole Creek	800	2.00	400
F.	Yellowstone-Hall Canyon	300	.30	1,000
	West Side			
G.	Soapstone	7,500	.13	58,000
	North Side			
H.	East Fork Bear River	100	1.00	100
I.	Elizabeth Mt.	2,500	1.00	2,500
J.	East Fk. of Black Fk. G.S.	300	.75	400
K.	Old Black Fk. Commissary	1,500	.75	2,000
L.	Uewinta G.S.	200	.50	400
M.	Cowboy Park	5,000	1.67	3,000
N.	Gilbert Creek	5,000	1.00	5,000
O.	Smiths Fk.	20,000	2.00	10,000
P.	Sage Cr.-Red Mt.	2,000	.80	2,500
Q.	Dahlgreen Cr.	6,000	2.00	3,000
R.	Henry's Fk.	6,000	.90	6,500
S.	Poison Cr.	500	.70	700
TOTALS		69,400	.56	133,000

DISCUSSION AND SUMMARY

The mountain pine beetle is still in epidemic status in the lodgepole pine stands of the Ashley and Wasatch National Forests. The northern half of the forest is hit heaviest. Actually areas L thru S and area A could be considered as one large infested unit. There are definite indications that the infestation is once again on the upswing, and that in many areas the infestation has moved and is moving, from the fringe type lodgepole areas into the vast bodies of solid continuous lodgepole pine.

The only basis for evaluation of the mountain pine beetle epidemic was the aerial survey. A ground cruise was not made since no control action has taken place in the last 12 years, or is contemplated for the immediate future. The aerial observer does, however, have a good working knowledge of the northern infested areas, obtained by ground examinations and surveys in the past.


WASATCH NATIONAL FOREST
UTAH AND WYOMING
SALT LAKE, SIXTH PRINCIPAL AND
UINTA SPECIAL MERIDIANS
1955
U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
ASHLEY NATIONAL FOREST
UTAH
SALT LAKE AND UINTA SPECIAL MERIDIANS
1955
U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
KEY MAP
KEY MAP
Est. 54,000 Deer Killed in 1955
WASATCH
NATIONAL
FOREST
HIGH UINTAS
WILDERNESS
AREA
UINTA
WASATCH
FOREST
UTAH
SUMMIT CO.
DUCHESNE CO.
DAGGETT CO.
UINTAH CO.
SALT LAKE MERIDIAN
UINTA SPECIAL MERIDIAN
T.3N.
T.2N.
T.1N.
T.1S.
T.2S.
T.3S.
T.4S.
R.10E.
R.22E.
R.23E.
R.24E.
R4W.
R3W
R2W
R1W
R1E
Mountain Home
Altonah
Bonerta
Mt. Emmons
Bluebell
Monarch
Neola
Hayden
Leeta
Cedarview
Bennett
Whiterocks
Cottonwood
VERNAL
Manila
Jesson Butte
Gilmore Peak
Bear Mtn.
Red Canyon
Spirit Lake
Long Mtn.
Bullfrog Hill
Dry Fork
Soapstone Basin
Flat Top Mtn.
Old Man Mtn.
Hickman Knolls
Table Mtn.
Elizabeth Mtn.
Hump Pk.
Holiday Park
Duchesne Special Base Line
Uinta Special Meridian

TARGHEE NATIONAL FOREST

EAST DIVISION

IDAHO AND WYOMING

BOISE AND SIXTH PRINCIPAL MERIDIANS

1955*

U S DEPARTMENT OF AGRICULTURE
FOREST SERVICE

SCALE

1 0 1 2 3 4 5 MILES

LEGEND

- NATIONAL FOREST BOUNDARY
- ADJACENT NATIONAL FOREST BOUNDARY
- MAIN MOTOR HIGHWAY
- GOOD MOTOR ROAD
- POOR MOTOR ROAD
- TRAIL
- RAILROAD
- TELEPHONE LINE
- SUPERVISOR'S HEADQUARTERS
- DISTRICT RANGER STATION
- GUARD OR RANGER STATION NOT PERMANENTLY OCCUPIED
- PERMANENT LOOKOUT STATION
- TRIANGULATION STATION
- TRIANGULATION STATION AND PERMANENT LOOKOUT STATION
- HOUSE, CABIN OR OTHER BUILDING
- MUNICIPAL AIRPORT
- (191) NATIONAL HIGHWAY ROUTE NUMBERS
- (26) STATE HIGHWAY NUMBERS
- AUXILIARY LANDING FIELD
- NATIONAL FOREST LAND

Zone I

Zone II

Zone III

Main Rexburg Infestation

REPORT ALL FIRES TO FOREST SUPERVISOR,
RANGER, GUARD, SHERIFF OR ANY TELEPHONE OPERATOR

COMPILED AT REGIONAL OFFICE, OGDEN 1948
FROM USGS, BLM LAND MAN (FORMERLY G.L.O.),
FOREST SERVICE AND OTHER SURVEYS BY
S. P. HAUN
ED 1950 BY C. SPAUN

*REPRINT OF 1950 EDITION

FOREST SERVICE
MAP CLASS E

KEY MAP

MONTANA
IDAHO FALLS
POCATELLO
WYO
IDAHO
UTAH

BOISE MERIDIAN
SIXTH PRINCIPAL MERIDIAN

POLYCONIC PROJECTION
1927 NORTH AMERICAN DATUM

LONGITUDE WEST FROM GREENWICH

AGRICULTURE-OGDEN

IP&RES 2/17/56

C. J. Olsen, Regional Forester, By

S, CONTROL, Ashley, Insect

Attached is copy of a memo from the Ashley regarding Washburn's aerial survey report which we know will be of interest to you.

It has been gratifying to us to note the response to your various survey reports this year. It points up the need and value of this type of work.

It also points up the need for prompt reporting. We know we overloaded Dick to the point where he could not possibly work on reports prior to the end of the field season last year, but we feel that we fell down on the job by not letting the Ashley know promptly what information we had so that something could have been done about it in the fall. Hereafter we will plan to get together with Dick immediately after the flying job is done and if agreeable with you we will prepare and send out brief preliminary reports wherever necessary.

We like Doll's suggestion that a forest officer accompany Dick on the survey flights. Such a practice would eliminate the need for the above mentioned preliminary report. If you agree, we could take care of notifying the forests if Dick would provide us with a tentative flight schedule.

Attachment

cc: D Ashley